

DESIGNING A DATA CENTER

ABSTRACT

A system and method for designing a data center. For each unique piece of equipment (e.g., a specific type/model of computer server, storage array, communication device) that may be installed in a data center, or each unique configuration of a piece of equipment, an equipment unit (EU) is defined to describe the equipment requirements or characteristics regarding power, cooling, size, weight, connectivity and/or other factors. An interchangeable equipment unit (IEU) may be defined to reflect the worst-case requirements of multiple pieces of equipment that may be interchanged or substituted (e.g., two different storage arrays). The total requirements of a desired equipment layout are determined from the EUs, and may be compared to the capacities of the data center space regarding available power, cooling, physical size, weight restrictions, etc. If any requirements exceed a data center capacity, the equipment or layout may be altered or the data center may be restructured.